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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/672,702	09/25/2003	Manabu Ohga	CFA 00008 US	9235

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CANON U.S.A. INC. INTELLECTUAL PROPERTY DIVISION  
15975 ALTON PARKWAY  
IRVINE, CA 92618-3731

EXAMINER
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RODRIGUEZ, LENNIN R

ART UNIT	PAPER NUMBER
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2625

MAIL DATE	DELIVERY MODE
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07/18/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

10/672,702

Applicant(s)

OHGA, MANABU

Examiner

Lennin R. Rodriguez

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 25 September 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 September 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
  - 2) ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Drawings*

1. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description:

(1) 21, 22, 23, 24, 25, 26 in Fig. 2;

(2) 42, 36 in Fig. 4;

(3) 36 in Fig. 5.

Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the examiner does not accept the changes, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

2. Figures 1 and 2 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid

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abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the examiner does not accept the changes, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

***Claim Rejections - 35 USC § 101***

3. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

4. Claims 6 and 7 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. A "program" is being recited; however a "program" as presented in the claims is directed to software per se. This subject matter is not limited to that which falls within a statutory category of invention because it is limited to a process, machine, manufacture, or a composition of matter. Software is a function descriptive material and a function descriptive material is non-statutory subject matter. Examiner suggests changing it to – program stored in a computer readable medium --.

***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 1-4 and 6-13 are rejected under 35 U.S.C. 102(e) as being anticipated by Zeng (US Publication 2002/0159081).

(1) regarding claim 1:

Zeng '081 discloses an information processing method for converting input color data indicating a plurality of color components including a black color component into output color data that indicates a plurality of color components including a black color component (paragraph [0033], where there is a plurality of colors including black (K)), said information processing method comprising:

determining a relationship between lightness levels and black color based on characteristics of an output device (paragraph [0034] lines 8-21); and

determining, when the input color data indicates a simple black color (paragraph [0034], lines 4-7, where "managing black separated from color data" is being interpreted as simple black color), output color data for a simple black color having a lightness level equivalent to a lightness level of the input color data (paragraph [0034], lines 14-17 and paragraph [0035], where an output black (K') determination step is performed after determination of the lightness levels), based on the determined relationship between lightness levels and black color (paragraph [0034], lines 14-21).

(2) regarding claim 2:

Zeng '081 further discloses wherein the input color data is converted into the output color data via a device-independent color space by using a source profile and a destination profile (paragraph [0029], lines 10-18 and paragraph [0030], lines 8-10, where the input profile is the source profile and the output profile the destination profile);

wherein the relationship between lightness levels and black color is determined by using the destination profile (paragraph [0030], lines 10-14); and

wherein when the input color data indicates a simple black color (paragraph [0034], lines 4-7, where managing black separated from color data is being interpreted as simple black color), lightness information is determined by converting the input color data into color data represented by a device-dependent color space by using the source profile (paragraph [0034], [0035] and [0036], where the lightness information is determined in the conversion of input color data into output color data and the PCS' is being interpreted as the device-dependent since it is printer-specific), and the output color data for a simple black color is determined from the lightness information by using the relationship between lightness levels and black color (paragraph [0034] and [0035], where the output K' values is determined by the lightness and black relationship).

(3) regarding claim 3:

Zeng '081 further discloses wherein the input data and the output data are either simple black colors (paragraph [0034], lines 4-7, where managing black separated from color data is being interpreted as simple black color) or achromatic.

(4) regarding claim 4:

Zeng '081 further discloses an information processing method for converting input color data into output color data that indicates a plurality of color components including a black color component (paragraph [0033], where there is a plurality of colors including black (K)), said information processing method comprising:

determining a relationship between lightness levels and black color based on characteristics of an output device (paragraph [0034] lines 8-21); and

determining, when the input color data indicates an achromatic color (paragraph [0034], lines 4-7, where black is an achromatic color and "managing black separated from color data" is being interpreted as simple black color), output color data for black color having a lightness level equivalent to a lightness level of the input color data (paragraph [0034], lines 14-17 and paragraph [0035], where an output black (K') determination step is performed after determination of the lightness levels) based on the relationship between lightness levels and black color (paragraph [0034], lines 14-21).

(5) regarding claim 6:

Zeng '081 further discloses a program for implementing an information processing method for converting input color data indicating a plurality of color components including a black color component into output color data that indicates a plurality of color components including a black color component (paragraph [0041], lines 10-15), said program implementing:

determining a relationship between lightness levels and black color based on characteristics of the output device (paragraph [0034] lines 8-21); and

determining, when the input color data indicates black color (paragraph [0034], lines 4-7), output color data for the black color having a lightness level equivalent to a lightness level of the input color data (paragraph [0034], lines 14-17 and paragraph [0035], where an output black (K') determination step is performed after determination of the lightness levels) based on the relationship between lightness levels and black color (paragraph [0034], lines 14-21).

(6) regarding claim 7:

Zeng '081 further discloses a program for implementing an information processing method for converting input color data into output color data that indicates a plurality of color components including a black color component (paragraph [0041], lines 10-15), said program implementing:

determining a relationship between lightness levels and black color based on characteristics of the output device (paragraph [0034] lines 8-21); and

determining, when the input color data indicates an achromatic color (paragraph [0034], lines 4-7, where black is an achromatic color), output color data for black color having a lightness level equivalent to a lightness level of the input color data (paragraph [0034], lines 14-17 and paragraph [0035], where an output black (K') determination step is performed after determination of the lightness levels) based on the relationship between lightness levels and black color (paragraph [0034], lines 14-21).

(7) regarding claim 8:

Zeng '081 further discloses an information processing apparatus for converting input color data indicating a plurality of color components including a black color



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component into output color data that indicates a plurality of color components including a black color component (paragraph [0033], where there is a plurality of colors including black (K)), said information processing apparatus comprising:

a first section arranged to determine a relationship between lightness levels and black color based on characteristics of an output device (paragraph [0034] lines 8-21); and

a second section arranged to determine, when the input color data indicates black color (paragraph [0034], lines 4-7), output color data for black color having a lightness level equivalent to a lightness level of the input color data (paragraph [0034], lines 14-17 and paragraph [0035], where an output black (K') determination step is performed after determination of the lightness levels) based on the relationship between lightness levels and black color (paragraph [0034], lines 14-21).

(8) regarding claim 9:

Zeng '081 further discloses an information processing apparatus for converting input color data into output color data that indicates a plurality of color components including a black color component (paragraph [0033], where there is a plurality of colors including black (K)), said information processing apparatus comprising:

a first section arranged to determine a relationship between lightness levels and black color based on characteristics of an output device (paragraph [0034] lines 8-21); and

a second section arranged to determine, when the input color data indicates an achromatic color [0034], lines 4-7, where black is an achromatic color), output color data

for black color having a lightness level equivalent to a lightness level of the input color data (paragraph [0034], lines 14-17 and paragraph [0035], where an output black (K') determination step is performed after determination of the lightness levels) based on the relationship between lightness levels and black color (paragraph [0034], lines 14-21).

(9) regarding claim 10:

Zeng '081 further discloses wherein the black color is a simple black color (paragraph [0034], lines 4-7, where managing black separated from color data is being interpreted as simple black color).

(10) regarding claim 11:

Zeng '081 further discloses an information processing method for using characteristics of an output device to convert an input black color into an output black color (paragraph [0033], where there is a plurality of colors including black (K)), said method comprising:

determining a lightness level for the input black color (paragraph [0034], lines 10-14, where the lightness information is being determined so it can be compared);

establishing a relationship between lightness levels and black color for the output device (paragraph [0034], lines 17-21); and

generating the output black color by using the lightness level of the input black color and the relationship between lightness levels and black color of the output device (paragraph [0036], lines 9-15, where the output black color is been generated in accordance with the lightness level computed in paragraph [0034], and the characteristics of the output device, that is the relationship between lightness and black

color (paragraph [0034], lines 16-17, where the K' lightness is the lightness of the output device)).

(11) regarding claim 12:

Zeng '081 further discloses wherein the output black color has a lightness level corresponding to the lightness level of the input black color (paragraph [0034], lines 14-17 and paragraph [0035], where an output black (K') determination step is performed after determination of the lightness levels).

(12) regarding claim 13:

Zeng '081 further discloses wherein the input black color is a simple black color and the output black color is a simple black (paragraph [0034], lines 4-7, where managing black separated from color data is being interpreted as simple black color).

### ***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Zeng (US Publication 2002/0159081) further in view of as applied to claim 4 above, and further in view of Horie et al. (US Patent 5,113,252).

Zeng '081 discloses all the subject matter as described above except wherein the input color data is formed of a red color component, a green color component, and a

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blue color component, and, when the red color component, the green color component, and the blue color component are equal to each other, the input color data is determined to be an achromatic color.

However, Horie '252 in the same field of endeavor teaches wherein the input color data is formed of a red color component, a green color component, and a blue color component (column 11, lines 63-68 and column 12, lines 1-3, where the color data is composed of blue, red and green), and, when the red color component, the green color component, and the blue color component are equal to each other, the input color data is determined to be an achromatic color (column 17, lines 44-47).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made that the input color data is formed of a red color component, a green color component, and a blue color component, and, when the red color component, the green color component, and the blue color component are equal to each other, the input color data is determined to be an achromatic color as taught by Horie '252, in the system of Zeng '081. This provides an image processing apparatus, which can satisfactorily identify a character area and a halftone area in an image including characters (column 2, lines 8-11).

### ***Conclusion***

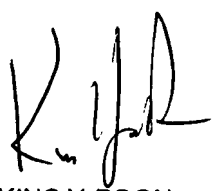
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lennin R. Rodriguez whose telephone number is (571)

270-1678. The examiner can normally be reached on Monday - Thursday 7:30am - 6:00pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, King Poon can be reached on (571) 272-7440. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Lennin Rodriguez  
7/12/07

  
KING Y. POON  
~~PRIMARY EXAMINER~~  
*Supervising Patent*